AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Currently Amended) An electrolytic apparatus for use in an oxide electrowinning method, said apparatus comprising:

an annular electrolytic vessel made of a metallic material and having an annular space with a bottom formed therein ~~and designed in consideration of criticality control with geometrical control,~~;

a high frequency induction coil for heating a substance to be processed in said electrolytic vessel[[,]];

an annular anode installed at the bottom of ~~an~~ the annular space formed in the annular electrolytic vessel[[,]]; ~~and~~

rod-shaped anodes and rod-shaped cathodes installed along the axial direction in the annular space and arranged in parallel, the rod-shaped anodes and the annular anode being arranged vertically;

a first electrolysis controller connected between the rod-shaped cathodes and the annular anode, and

a second electrolysis controller connected between the rod-shaped cathodes and the rod-shaped anodes,

wherein one of a parallel pair of the rod-shaped anodes and the rod-shaped cathodes ~~arranged in parallel or~~ and a vertical pair of the annular anode and the rod-shaped cathodes ~~arranged vertically~~ is used for main electrolysis and the other of the pairs is used for auxiliary electrolysis.

3. (Currently Amended) ~~The~~An electrolytic apparatus for use in an oxide electrowinning method according to claim 2, further comprising a rotational driving mechanism, wherein the rod- shaped cathodes are supported ~~rotatably and a rotation driving mechanism is additionally installed~~rotationally and are rotated by the rotational driving mechanism.

4. (Currently Amended) A spent nuclear fuel reprocessing method with an oxide electrowinning method by using the electrolytic apparatus according to claim 2, wherein the oxide electrowinning method comprises:

~~the substance to be processed in the annular electrolytic vessel is a molten salt dissolving the spent nuclear fuel, and wherein in~~ a simultaneous electrolytic step, ~~in which~~ including dissolving uranium oxide contained in a large amount in ~~the~~ a spent nuclear fuel ~~is dissolved~~ into ~~the~~ a molten salt ~~by~~due to anodic oxidation reaction, and simultaneously ~~recovered~~ recovering uranium oxide ~~as~~by depositing uranium oxide ~~electrodeposition~~ on the surface of the cathode ~~by~~due to cathodic reduction ~~reaction.~~;

a dissolution step by chlorination in which the electrolytic step is stopped, ~~and~~ including dissolving uranium oxide, plutonium oxide and other elements remaining in the spent nuclear fuel into the molten salt by blowing chlorine gas into the molten salt to convert the uranium oxide, the plutonium oxide and other elements remaining in the spent nuclear fuel to chlorides thereof; and

a MOX recovery step, including performing electrolysis between one of the anodes doubling as a crucible and one of the rod-shaped cathodes installed in the upper portion of the crucible, and recovering other oxides of uranium and plutonium by deposition of the oxides in a mixed state on the surface of the cathode, after the entire spent nuclear fuel has been dissolved into the molten salt;

wherein in the simultaneous electrolytic step, the vertical pair of the annular anode and the rod-shaped cathodes ~~electrodes~~is used for main electrolysis in which uranium oxide is dissolved and deposited by electrochemical reaction[[,]] and the parallel pair of the rod-shaped anodes and the rod-shaped cathodes ~~electrodes~~ is used for auxiliary electrolysis ~~whose role is to suppress~~for suppressing the ununiform uranium oxide electrodeposition[[;]], and

~~in a~~wherein in the MOX recovery step ~~in which the oxides of uranium and plutonium are deposited and recovered in a mixed state~~, the parallel pair of the rod-shaped anodes and the rod-shaped cathodes ~~electrodes~~ is used for main electrolysis in which the MOX is deposited, and the vertical pair of the annular anode and the rod-shaped cathodes ~~electrodes~~ is used for auxiliary

electrolysis ~~whose role is to dissolve~~for dissolving the electrodeposit fallen down from the cathodes.

5. (Currently Amended) A spent nuclear fuel reprocessing method with an oxide electrowinning method by using the electrolytic apparatus according to claim 3, wherein the ~~substance to be processed in the annular electrolytic vessel is a molten salt dissolving the spent nuclear fuel, and wherein in~~oxide electrowinning method comprises:

a simultaneous electrolytic step, ~~in which~~including dissolving uranium oxide contained in a large amount in ~~the~~a spent nuclear fuel ~~is dissolved~~ into ~~the~~a molten salt ~~by~~due to anodic oxidation reaction, and simultaneously ~~recovered~~ recovering uranium oxide ~~as~~by depositing uranium oxide ~~electrodeposition~~ on the surface of the cathode ~~by~~due to cathodic reduction ~~reaction.~~;

a dissolution step by chlorination in which the electrolytic step is stopped, including dissolving uranium oxide, plutonium oxide and other elements remaining in the spent nuclear fuel into the molten salt by blowing chlorine gas into the molten salt to convert the uranium oxide, the plutonium oxide and other elements remaining in the spent nuclear fuel to chlorides thereof; and

a MOX recovery step, including performing electrolysis between one of the anodes doubling as a crucible and one of the rod-shaped cathodes installed in the upper portion of the crucible, and recovering other oxides of uranium and plutonium by deposition of the oxides in a mixed state on the surface of the cathode, after the entire spent nuclear fuel has been dissolved into the molten salt,

wherein in the simultaneous electrolytic step, the vertical pair of the annular anode and the rod-shaped cathodes~~electrodes~~ is used for main electrolysis in which uranium oxide is dissolved and deposited by electrochemical reaction[[,]] and the parallel pair of the rod-shaped anodes and the rod-shaped cathodes ~~electrodes~~ is used for auxiliary electrolysis ~~whose role is to suppress~~for suppesing the ununiform uranium oxide electrodeposition[[;]],

~~and in a~~wherein in the MOX recovery step ~~in which the oxides of uranium and~~

~~plutonium are deposited and recovered in a mixed state~~, the parallel pair of the rod-shaped anodes and the rod-shaped cathodes ~~electrodes~~ is used for main electrolysis in which the MOX is deposited, and the vertical pair of the annular anode and the rod-shaped cathodes~~electrodes~~ is used for auxiliary electrolysis ~~whose role is to dissolve~~for dissolving the electrodeposit fallen down from the cathodes.